

WHAT IS CLAIMED IS:

1. Cosmetic composition comprising, in a cosmetically acceptable medium, at least one fluorescent dye that is soluble in medium and at least one non-associative thickening polymer chosen from:

- (i) crosslinked acrylic acid homopolymers;
- (ii) crosslinked 2-acrylamido-2-methylpropanesulphonic acid homopolymers and the partially or totally neutralized acrylamide crosslinked copolymers thereof;
- (iii) ammonium acrylate homopolymers or copolymers of ammonium acrylate and of acrylamide;
- (iv) dimethylaminoethyl methacrylate homopolymers quaternized with methyl chloride; and copolymers of dimethylaminoethyl methacrylate quaternized with methyl chloride and of acrylamide;
- (v) nonionic guar gums;
- (vi) biopolysaccharide gums of microbial origin;
- (vii) gums derived from plant exudates;
- (viii) hydroxypropyl and carboxymethyl celluloses;
- (ix) pectins; and
- (x) alginates;

wherein the composition does not comprise, as the at least one fluorescent dye, 2-[2-(4-dialkylamino)phenylethenyl]-1-alkylpyridinium wherein the alkyl radical of the pyridinium nucleus represents a methyl or ethyl radical, the alkyl radical of the benzene nucleus represents a methyl radical, and wherein the counterion is a halide.

2. The composition of Claim 1, wherein the biopolysaccharide gums of microbial origin are chosen from scleroglucan gum and xanthan gum.
3. The composition of Claim 1, wherein the gums derived from plant exudates are chosen from gum arabic, ghatti gum, karaya gum, and gum tragacanth.
4. The composition according to Claim 1, characterized in that the nonionic guar gums are modified with C₁-C₆ hydroxyalkyl groups.
5. The composition of Claim 1, wherein the concentration of the at least one non-associative thickening polymer ranges from 0.01% to 10% by weight relative to the total weight of the composition.
6. The composition according to Claim 5, wherein the concentration of the at least one non-associative thickening polymer ranges from 0.1% to 5% by weight relative to the total weight of the composition.
7. The composition according to Claim 1, wherein the at least one fluorescent dye is soluble in the cosmetically acceptable medium to at least 0.001 g/l at a temperature of between 15 and 25°C.
8. The composition according to Claim 1, wherein the at least one fluorescent dye is soluble in the cosmetically acceptable medium to at least 0.5 g/l at a temperature of between 15 and 25°C.
9. The composition according to Claim 1, wherein the at least one fluorescent dye is soluble in the cosmetically acceptable medium to at least 1 g/l at a temperature of between 15 and 25°C.

10. The composition according to Claim 1, wherein the at least one fluorescent dye is soluble in the cosmetically acceptable medium to at least 5 g/l at a temperature of between 15 and 25°C.

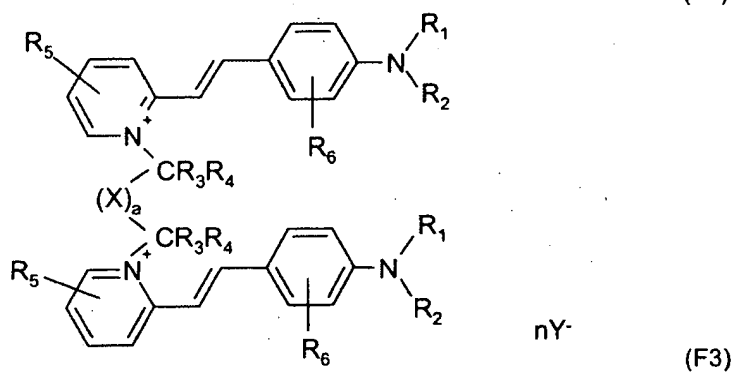
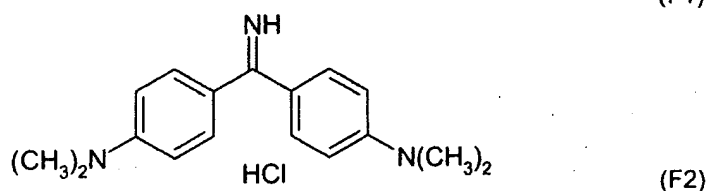
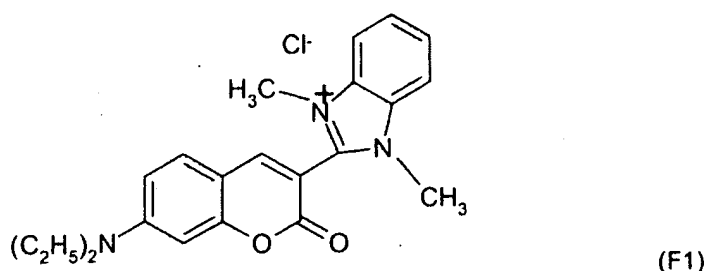
11. The composition according to Claim 1, wherein the at least one fluorescent dye is a dye in the orange range.

12. The composition according to Claim 1, wherein the at least one fluorescent dye leads to a reflectance maximum that is in the wavelength range from 500 to 650 nanometers.

13. The composition according to Claim 12, wherein the at least one fluorescent dye leads to a reflectance maximum that is in the wavelength range from 550 to 620 nanometers.

14. The composition according to Claim 1, wherein the at least one fluorescent dye is chosen from the fluorescent dyes belonging to the following families: naphthalimides; cationic and non-cationic coumarins; xanthenodiquinolizines; azaxanthenes; naphtholactams; azlactones; oxazines; thiazines; dioxazines; polycationic fluorescent dyes of azo, azomethine, and methine type.

15. The composition according to Claim 1, wherein the at least one fluorescent dye is chosen from dyes of formula F1, F2, F3, and F4:



wherein:

R_1 and R_2 , which may be identical or different, are chosen from:

- a hydrogen atom;
- linear or branched alkyl radicals comprising 1 to 10 carbon atoms, optionally interrupted with at least one entity chosen from hetero atoms and groups comprising at least one hetero atom, and/or optionally substituted with at least one entity chosen from hetero atoms, groups comprising at least one hetero atom, and at least one halogen atom; and
- aryl or arylalkyl radicals, the aryl group comprising 6 carbon atoms and the alkyl radical containing 1 to 4 carbon atoms; the aryl radical optionally being substituted with one or more linear or branched alkyl radicals comprising 1 to

4 carbon atoms optionally interrupted with at least one entity chosen from hetero atoms and groups comprising at least one hetero atom, and/or optionally substituted with at least one entity chosen from hetero atoms, groups comprising at least one hetero atom, and at least one halogen atom;

- R_1 and R_2 may optionally be linked so as to form a heterocycle with the nitrogen atom and may comprise one or more other hetero atoms, the heterocycle optionally being substituted with at least one linear or branched alkyl radicals, and optionally being interrupted and optionally substituted with at least one entity chosen from hetero atoms and groups comprising at least one hetero atom and/or substituted with at least one halogen atom; and
- R_1 or R_2 may optionally be included in a heterocycle comprising the nitrogen atom and one of the carbon atoms of the phenyl group comprising the nitrogen atom;

R_3 and R_4 , which may be identical or different, are chosen from a hydrogen atom and alkyl radicals comprising 1 to 4 carbon atoms;

R_5 , which may be identical or different, is chosen from a hydrogen atom; a halogen atom; and linear or branched alkyl radicals comprising 1 to 4 carbon atoms, optionally interrupted with at least one hetero atom;

R_6 , which may be identical or different, is chosen from a hydrogen atom; a halogen atom; linear or branched alkyl radicals comprising 1 to 4 carbon atoms, optionally interrupted with at least one entity chosen from hetero atoms and groups comprising at least one hetero atom, and/or optionally substituted with at least one entity chosen from hetero atoms, groups comprising at least one hetero atom, and at least one halogen atom;

X is chosen from:

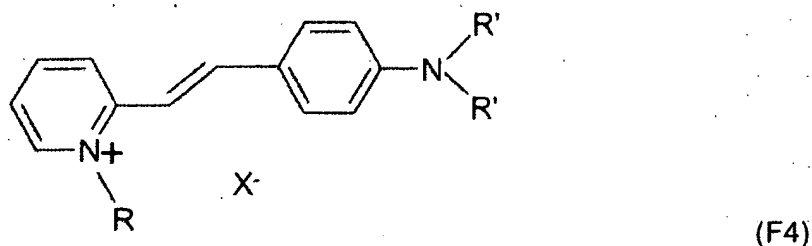
- linear or branched alkyl radicals comprising 1 to 14 carbon atoms and alkenyl radicals comprising 2 to 14 carbon atoms, optionally interrupted with at least one entity chosen from hetero atoms and groups comprising at least one hetero atom, and/or optionally substituted with at least one entity chosen from hetero atoms, groups comprising at least one hetero atom, and at least one halogen atom;
- 5- or 6-membered heterocyclic radicals optionally substituted with at least one linear or branched alkyl radical comprising 1 to 14 carbon atoms, optionally substituted with at least one hetero atom; with at least one linear or branched aminoalkyl radical comprising 1 to 4 carbon atoms, optionally substituted with at least one hetero atom; with at least one halogen atom;
- fused or non-fused aromatic or diaromatic radicals, optionally separated with an alkyl radical comprising 1 to 4 carbon atoms, the aryl radical(s) optionally being substituted with at least one halogen atom or with at least one alkyl radical comprising 1 to 10 carbon atoms optionally substituted and/or interrupted with at least one hetero atom and/or group bearing at least one hetero atom; and
- dicarbonyl radicals;
- the group X possibly bearing one or more cationic charges;

a being equal to 0 or 1;

Y, which may be identical or different, is chosen from organic and mineral anions; and

n is an integer at least equal to 2 and at most equal to the number of cationic charges

present in the fluorescent compound; and



wherein R is chosen from methyl and ethyl radicals; R' is chosen from methyl radicals; and X⁻ is an anion chosen from chloride, iodide, sulphate, methosulphate, acetate, and perchlorate.

16. The composition according to Claim 15, wherein R₁ and R₂, which may be identical or different, are chosen from linear or branched alkyl radicals comprising 1 to 4 carbon atoms, optionally interrupted with at least one entity chosen from hetero atoms and groups comprising at least one hetero atom, and/or optionally substituted with at least one entity chosen from hetero atoms, groups comprising at least one hetero atom, and at least one halogen atom.

17. The composition according to Claim 15, wherein R₁ and R₂ may optionally be linked so as to form a heterocycle with the nitrogen atom and may comprise one or more other hetero atoms, the heterocycle optionally being substituted with at least one linear or branched alkyl radical comprising from 1 to 4 carbon atoms, and optionally interrupted with at least one entity chosen from hetero atoms and groups comprising at least one hetero atom, and/or optionally substituted with at least one entity chosen from hetero atoms, groups comprising at least one hetero atom, and at least one halogen atom.

18. The composition according to Claim 1, wherein the at least one fluorescent dye is present in an amount ranging from 0.01% to 20% by weight relative to the total weight of the composition.

19. The composition according to Claim 18, wherein the at least one fluorescent dye is present in an amount ranging from 0.05% to 10% by weight relative to the total weight of the composition.

20. The composition according to Claim 19, wherein the at least one fluorescent dye is present in an amount ranging from 0.1% to 5% by weight relative to the total weight of the composition.

21. The composition according to Claim 1, further comprising at least one additional non-fluorescent direct dye chosen from non-fluorescent direct dyes of nonionic, cationic, and anionic nature.

22. The composition according to Claim 21, wherein the at least one additional non-fluorescent direct dye is chosen from nitrobenzene dyes, azo dyes, anthraquinone dyes, naphthoquinone dyes, benzoquinone dyes, indigoid dyes, and triarylmethane-based dyes.

23. The composition according to Claim 21, wherein the at least one additional non-fluorescent direct dye is present in an amount ranging from 0.0005% to 12% by weight relative to the total weight of the composition.

24. The composition according to Claim 23, wherein the at least one additional non-fluorescent direct dye is present in an amount ranging from 0.005% to 6% by weight relative to the total weight of the composition.

25. The composition according to Claim 1, wherein the composition is in the form of a lightening dyeing shampoo.

26. The composition according to Claim 1, further comprising at least one oxidation base chosen from para-phenylenediamines, bis(phenyl)alkylenediamines, para-aminophenols, ortho-aminophenols and heterocyclic bases, and the addition salts thereof with an acid or with an alkaline agent.

27. The composition according to Claim 26, wherein the at least one oxidation base is present in an amount ranging from 0.0005% to 12% by weight relative to the total weight of the composition.

28. The composition according to Claim 27 wherein the at least one oxidation base is present in an amount ranging from 0.005% to 6% by weight relative to the total weight of the composition.

29. The composition according to Claim 26, further comprising at least one coupler chosen from meta-phenylenediamines, meta-aminophenols, meta-diphenols and heterocyclic couplers, and the addition salts thereof with an acid or with an alkaline agent.

30. The composition according to Claim 29, wherein the at least one coupler is present in an amount ranging from 0.0001% to 10% by weight relative to the total weight of the dye composition.

31. The composition according to Claim 30, wherein the at least one coupler is present in an amount ranging from 0.005% to 5% by weight relative to the total weight of the dye composition.

32. The composition according to Claim 1, further comprising at least one oxidizing agent.

33. The composition according to Claim 32, wherein the at least one oxidizing agent is chosen from hydrogen peroxide, urea peroxide, alkali metal bromates, persalts, and enzymes.

34. The composition of Claim 33, wherein the persalts are chosen from perborates and persulphates.

35. The composition of Claim 33, wherein the enzymes are chosen such as peroxidases and two-electron or four-electron oxidoreductases

36. A process for dyeing human keratin fibers with a lightening effect, comprising:
a) applying to the human keratin fibers for a time sufficient to develop the desired coloration and lightening, a composition comprising, in a cosmetically acceptable medium, at least one fluorescent dye that is soluble in the medium and at least one non-associative thickening polymer chosen from:

- (i) crosslinked acrylic acid homopolymers;
- (ii) crosslinked 2-acrylamido-2-methylpropanesulphonic acid homopolymers and the partially or totally neutralized acrylamide crosslinked copolymers thereof;
- (iii) ammonium acrylate homopolymers or copolymers of ammonium acrylate and of acrylamide;
- (iv) dimethylaminoethyl methacrylate homopolymers quaternized with methyl chloride; and copolymers of dimethylaminoethyl methacrylate quaternized with methyl chloride and of acrylamide;
- (v) nonionic guar gums;
- (vi) biopolysaccharide gums of microbial origin;

- (vii) gums derived from plant exudates;
- (viii) hydroxypropyl and carboxymethyl celluloses;
- (ix) pectins; and
- (x) alginates,

wherein the composition does not comprise, as the at least one fluorescent dye, 2-[2-(4-dialkylamino)phenylethenyl]-1-alkylpyridinium, wherein the alkyl radical of the pyridinium nucleus represents a methyl or ethyl radical, the alkyl radical of the benzene nucleus represents a methyl radical, and wherein the counterion is a halide;

- b) optionally rinsing the human keratin fibers;
- c) optionally washing the human keratin fibers with shampoo and rinsing; and
- d) drying the human keratin fibers.

37. The process of Claim 36, wherein the biopolysaccharide gums of microbial origin are chosen from scleroglucan gum and xanthan gum.

38. The process of Claim 36, wherein the gums derived from plant exudates are chosen from gum arabic, ghatti gum, karaya gum, and gum tragacanth.

39. The process according to Claim 36, comprising before applying said composition to the human keratin fibers, separately storing, said composition, and a second composition comprising, in a cosmetically acceptable medium, at least one oxidizing agent, and then mixing them together at the time of use.

40. The process according to Claim 36, wherein the composition is applied to hair with a tone height of less than or equal to 6.

41. The process according to Claim 36, wherein the composition is applied to hair with a tone height of less than or equal to 4.

42. The process according to Claim 36, wherein the keratin fibers are artificially colored or pigmented.

43. A process for coloring dark skin with a lightening effect, comprising: (a) applying to the skin a composition comprising, in a cosmetically acceptable medium, at least one fluorescent dye that is soluble in the medium and at least one non-associative thickening polymer chosen from:

- (i) crosslinked acrylic acid homopolymers;
- (ii) crosslinked 2-acrylamido-2-methylpropanesulphonic acid homopolymers and the partially or totally neutralized acrylamide crosslinked copolymers thereof;
- (iii) ammonium acrylate homopolymers or copolymers of ammonium acrylate and of acrylamide;
- (iv) dimethylaminoethyl methacrylate homopolymers quaternized with methyl chloride; and copolymers of dimethylaminoethyl methacrylate quaternized with methyl chloride and of acrylamide;
- (v) nonionic guar gums;
- (vi) biopolysaccharide gums of microbial origin;
- (vii) gums derived from plant exudates;
- (viii) hydroxypropyl or carboxymethyl celluloses;
- (ix) pectins; and
- (x) alginates,

wherein the composition does not comprise, as the at least one fluorescent dye 2-[2-(4-dialkylamino)phenylethenyl]-1-alkylpyridinium wherein the alkyl radical of the pyridinium nucleus represents a methyl or ethyl radical, the alkyl radical of the benzene nucleus represents a methyl radical, and wherein the counterion is a halide; and

(b) drying the skin.

44. The process of Claim 43, wherein the biopolysaccharide gums of microbial origin are chosen from scleroglucan gum and xanthan gum.

45. The process of Claim 43, wherein the gums derived from plant exudates are chosen from gum arabic, ghatti gum, karaya gum and gum tragacanth.

46. A multi-compartment device for dyeing with a lightening effect, comprising:

(a) at least one compartment containing a composition comprising, in a cosmetically acceptable medium, at least one fluorescent dye that is soluble in said medium and at least one non-associative thickening polymer chosen from:

- (i) crosslinked acrylic acid homopolymers;
- (ii) crosslinked 2-acrylamido-2-methylpropanesulphonic acid homopolymers and the partially or totally neutralized acrylamide crosslinked copolymers thereof;
- (iii) ammonium acrylate homopolymers or copolymers of ammonium acrylate and of acrylamide;
- (iv) dimethylaminoethyl methacrylate homopolymers quaternized with methyl chloride; and copolymers of dimethylaminoethyl methacrylate quaternized with methyl chloride and of acrylamide;
- (v) nonionic guar gums;

- (vi) biopolysaccharide gums of microbial origin;
- (vii) gums derived from plant exudates;
- (viii) hydroxypropyl or carboxymethyl celluloses;
- (ix) pectins; and
- (x) alginates,

wherein the composition does not comprise, as the at least one fluorescent dye 2-[2-(4-dialkylamino)phenylethenyl]-1-alkylpyridinium wherein the alkyl radical of the pyridinium nucleus represents a methyl or ethyl radical, the alkyl radical of the benzene nucleus represents a methyl radical and wherein the counterion is a halide; and

(b) at least one compartment containing a composition comprising at least one oxidizing agent.

47. The process of Claim 46, wherein the biopolysaccharide gums of microbial origin are chosen from scleroglucan gum and xanthan gum.

48. The process of Claim 46, wherein the gums derived from plant exudates are chosen from gum arabic, ghatti gum, karaya gum, and gum tragacanth.

49. A method for dyeing human keratin materials with a lightening effect, with a composition comprising, in a cosmetically acceptable medium, at least one fluorescent dye that is soluble in said medium and at least one non-associative thickening polymer chosen from:

- (i) crosslinked acrylic acid homopolymers;
- (ii) crosslinked 2-acrylamido-2-methylpropanesulphonic acid homopolymers and the partially or totally neutralized acrylamide crosslinked copolymers thereof;

- (iii) ammonium acrylate homopolymers or copolymers of ammonium acrylate and of acrylamide;
- (iv) dimethylaminoethyl methacrylate homopolymers quaternized with methyl chloride; and copolymers of dimethylaminoethyl methacrylate quaternized with methyl chloride and of acrylamide;
- (v) nonionic guar gums;
- (vi) biopolysaccharide gums of microbial origin;
- (vii) gums derived from plant exudates;
- (viii) hydroxypropyl or carboxymethyl celluloses;
- (ix) pectins; and
- (x) alginates,

wherein the composition does not comprise, as the at least one fluorescent dye, 2-[2-(4-dialkylamino)phenylethenyl]-1-alkylpyridinium wherein the alkyl radical of the pyridinium nucleus represents a methyl or ethyl radical, the alkyl radical of the benzene nucleus represents a methyl radical and wherein the counterion is a halide.

50. The process of Claim 49, wherein the biopolysaccharide gums of microbial origin are chosen from scleroglucan gum and xanthan gum.

51. The process of Claim 49, wherein the gums derived from plant exudates are chosen from gum arabic, ghatti gum, karaya gum, and gum tragacanth.

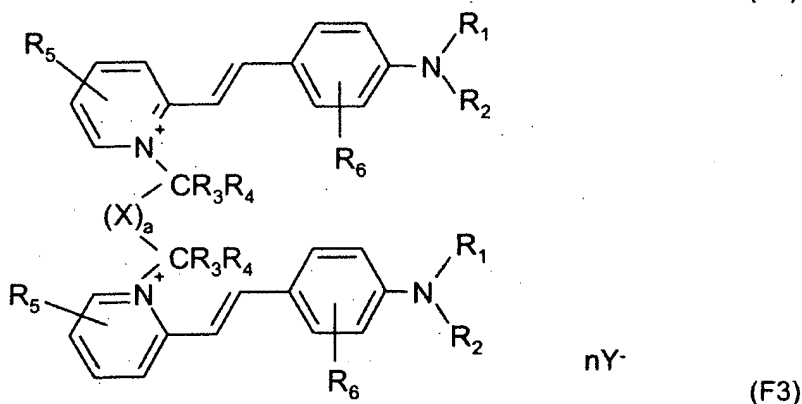
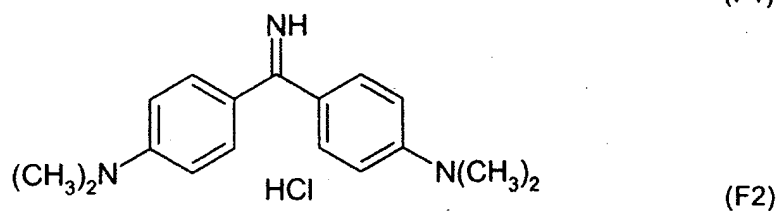
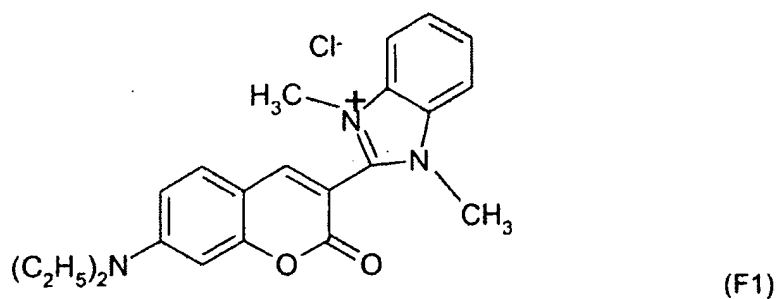
52. A method according to Claim 49, wherein the fluorescent dye is a dye in the orange range.

53. A method according to Claim 49, wherein the at least one fluorescent dye leads to a reflectance maximum that is in the wavelength range from 500 to 650 nanometers.

54. A method according to Claim 53, wherein the at least one fluorescent dye leads to a reflectance maximum that is in the wavelength range from 550 to 620 nanometers.

55. A method according to Claim 49, wherein the at least one fluorescent dye is chosen from the fluorescent dyes of the following families: naphthalimides; cationic and non-cationic coumarins; xanthenodiquinolizines; azaxanthenes; naphtholactams; azlactones; oxazines; thiazines; dioxazines; monocationic and polycationic fluorescent dyes of azo, azomethine and methine type.

56. A method according to Claim 49, wherein the at least one fluorescent dye is chosen from dyes of formula F1, F2, F3, and F4:



wherein:

R_1 and R_2 , which may be identical or different, are chosen from:

- a hydrogen atom;
- linear or branched alkyl radicals comprising 1 to 10 carbon atoms, optionally interrupted with at least one entity chosen from hetero atoms and groups comprising at least one hetero atom, and/or optionally substituted with at least one entity chosen from hetero atoms, groups comprising at least one hetero atom, and at least one halogen atom; and
- aryl or arylalkyl radicals, the aryl group comprising 6 carbon atoms and the alkyl radical containing 1 to 4 carbon atoms; the aryl radical optionally being

substituted with one or more linear or branched alkyl radicals comprising 1 to 4 carbon atoms optionally interrupted with at least one entity chosen from hetero atoms and groups comprising at least one hetero atom, and/or optionally substituted with at least one entity chosen from hetero atoms, groups comprising at least one hetero atom, and at least one halogen atom;

- R_1 and R_2 may optionally be linked so as to form a heterocycle with the nitrogen atom and may comprise one or more other hetero atoms, the heterocycle optionally being substituted with at least one linear or branched alkyl radicals, and optionally being interrupted and optionally substituted with at least one entity chosen from hetero atoms and groups comprising at least one hetero atom and/or substituted with at least one halogen atom; and
- R_1 or R_2 may optionally be included in a heterocycle comprising the nitrogen atom and one of the carbon atoms of the phenyl group comprising the nitrogen atom;

R_3 and R_4 , which may be identical or different, are chosen from a hydrogen atom and alkyl radicals comprising 1 to 4 carbon atoms;

R_5 , which may be identical or different, is chosen from a hydrogen atom; a halogen atom; and linear or branched alkyl radicals comprising 1 to 4 carbon atoms, optionally interrupted with at least one hetero atom;

R_6 , which may be identical or different, is chosen from a hydrogen atom; a halogen atom; linear or branched alkyl radicals comprising 1 to 4 carbon atoms, optionally interrupted with at least one entity chosen from hetero atoms and groups comprising at least one hetero atom, and/or optionally substituted with at least one entity chosen from hetero atoms,

groups comprising at least one hetero atom, and at least one halogen atom;

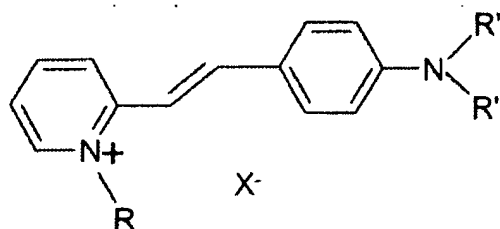
X is chosen from:

- linear or branched alkyl radicals comprising 1 to 14 carbon atoms and alkenyl radicals comprising 2 to 14 carbon atoms, optionally interrupted with at least one entity chosen from hetero atoms and groups comprising at least one hetero atom, and/or optionally substituted with at least one entity chosen from hetero atoms, groups comprising at least one hetero atom, and at least one halogen atom;
- 5- or 6-membered heterocyclic radicals optionally substituted with at least one linear or branched alkyl radical comprising 1 to 14 carbon atoms, optionally substituted with at least one hetero atom; with at least one linear or branched aminoalkyl radical comprising 1 to 4 carbon atoms, optionally substituted with at least one hetero atom; with at least one halogen atom;
- fused or non-fused aromatic or diaromatic radicals, optionally separated with an alkyl radical comprising 1 to 4 carbon atoms, the aryl radical(s) optionally being substituted with at least one halogen atom or with at least one alkyl radical comprising 1 to 10 carbon atoms optionally substituted and/or interrupted with at least one hetero atom and/or group bearing at least one hetero atom; and
- dicarbonyl radicals;
- the group X possibly bearing one or more cationic charges;

a being equal to 0 or 1;

Y⁻, which may be identical or different, is chosen from organic and mineral anions; and

n is an integer at least equal to 2 and at most equal to the number of cationic charges present in the fluorescent compound; and



(F4)

wherein R is chosen from methyl and ethyl radicals; R' is chosen from methyl radicals and X⁻ is an anion chosen from chloride, iodide, sulphate, methosulphate, acetate, and perchlorate.

57. A method according to Claim 49, wherein the at least one fluorescent dye is present in an amount ranging from 0.01% to 20% by weight, relative to the total weight of the composition.

58. A method according to Claim 57, wherein the at least one fluorescent dye is present in an amount ranging from 0.05% to 10% by weight relative to the total weight of the composition.

59. A method according to Claim 58, wherein the at least one fluorescent dye is present in an amount ranging from 0.1% to 5% by weight relative to the total weight of the composition.

60. A method according to Claim 49, wherein the keratin materials are artificially colored or pigmented keratin fibers.

61. A method according to Claim 49, wherein the keratin materials are hair.

62. A method according to Claim 49, wherein the keratin materials are dark skin.

63. A method according to Claim 49, wherein the hair has a tone height of less than or equal to 6.

64. A method according to Claim 49, wherein the hair has a tone height of less than or equal to 4.